This listing of claims will replace all prior versions, and listings, of claims in the application:

Amendments to and Listing of Claims:

Claim 1 (currently amended): A method for modulating circulatory perfusion in coordination with delivery of medication, comprising:

implanting at least one system control unit in the body of the patient,

wherein the at least one unit controls the delivery of at least one electrical stimulus to at least a first predetermined area affecting circulatory perfusion; ~~and~~

applying the at least one stimulus to the at least first predetermined area in order to modulate circulatory perfusion in at least a second area of the patient being treated wherein the at least second area includes tissue targeted to receive medication;

delivering medication to the at least second area of the patient being treated; and

modifying the stimulus applied to the at least first predetermined area to cause hypoperfusion in the at least second area,

wherein perfusion of the medication is restricted due to the hypoperfusion in the second area of the patient being treated

~~wherein the at least first predetermined area is at least one of smooth muscle, skeletal muscle, and vascular tissue~~.

Claim 2 (original): The method of Claim 1 wherein the first area and the second area are the same area.

Claim 3 (currently amended): The method of Claim 1 wherein the electrical stimulus is ~~electrical stimulation~~ delivered to at least one of a smooth muscle and a skeletal muscle at greater than about 50 to 100 Hz to relax the at least one smooth muscle and skeletal muscle.

Claim 4 (currently amended): The method of Claim 1 wherein the electrical stimulus is ~~electrical stimulation~~ delivered to at least one of a smooth muscle and a skeletal muscle at less than about 50 to 100 Hz to excite the at least one smooth muscle and skeletal muscle.

Claim 5 (currently amended): The method of Claim 1 wherein the electrical stimulus is ~~electrical stimulation~~ delivered to at least one smooth muscle at less than about 1-10 mA to relax the at least one smooth muscle.

Claim 6 (currently amended): The method of ~~Claim 1~~ Claim 21 wherein the medication ~~stimulus~~ is ~~at least one stimulating drug~~ delivered to the bloodstream from at least one of an artery and a vein.

Claim 7 and 8 (canceled)

Claim 9 (currently amended): The method of ~~Claim 8~~ Claim 1 wherein the medication is delivered locally~~, and wherein the stimulus is applied to cause hypoperfusion~~.

Claim 10 (currently amended): The method of ~~Claim 8~~ Claim 21 wherein the medication is delivered systemically~~, and wherein the stimulus is applied to cause hyperperfusion~~.

Claim 11 (original): The method of Claim 1 further comprising implanting more than one system control unit.

Claim 12 (original): The method of Claim 1 further comprising sensing a condition and using the sensed condition to automatically determine the stimulus to apply.

Claim 13 - 18 (canceled)

Claim 19 (currently amended): The method of ~~Claim 13~~ Claim 21 further comprising implanting more than one system control unit.

Claim 20 (canceled)

Claim 21 (currently amended): A method for modulating circulatory perfusion in coordination with delivery of medication, comprising:

implanting at least one system control unit in the body of the patient,

wherein the at least one unit controls the delivery of electrical stimulation to at least a first predetermined area affecting circulatory perfusion; ~~and~~

applying the electrical stimulation to the at least first predetermined area in order to modulate circulatory perfusion in at least a second area of the patient being treated wherein the at least second area includes tissue targeted to receive medication;

delivering medication to the at least third area of the patient being treated; and

modifying the stimulus applied to the at least first predetermined area to cause hyperperfusion in the at least second area,

wherein the medication is focused into the second area of the patient due to the hyperperfusion in the second area of the patient being treated

~~wherein the at least first predetermined area is at least one of smooth muscle, skeletal muscle, parasympathetic neural tissue, and vascular tissue~~.

Claim 22 (original): The method of Claim 21 wherein the first area and the second area are the same area.

Claim 23 (original): The method of Claim 21 wherein the electrical stimulation excites parasympathetic neural activity.

Claim 24 (original): The method of Claim 21 wherein the electrical stimulation inhibits sympathetic neural activity.

Claim 25 (original): The method of Claim 21 wherein the electrical stimulation is delivered at less than about 1-10 mA.

Claim 26 (original): The method of Claim 21 further comprising sensing a condition and using the sensed condition to automatically determine the stimulus to apply.

Claim 27 (new): The method of Claim 21 wherein the electrical stimulation is delivered to at least one of a smooth muscle and a skeletal muscle at greater than about 50 to 100 Hz to relax the at least one smooth muscle and skeletal muscle.

Claim 28 (new): The method of Claim 21 wherein the electrical stimulation is delivered to at least one of a smooth muscle and a skeletal muscle at less than about 50 to 100 Hz to excite the at least one smooth muscle and skeletal muscle.